



MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL
(A constituent unit of MAHE, Manipal)



PROJECT AUV MANIPAL

PRESENTATION



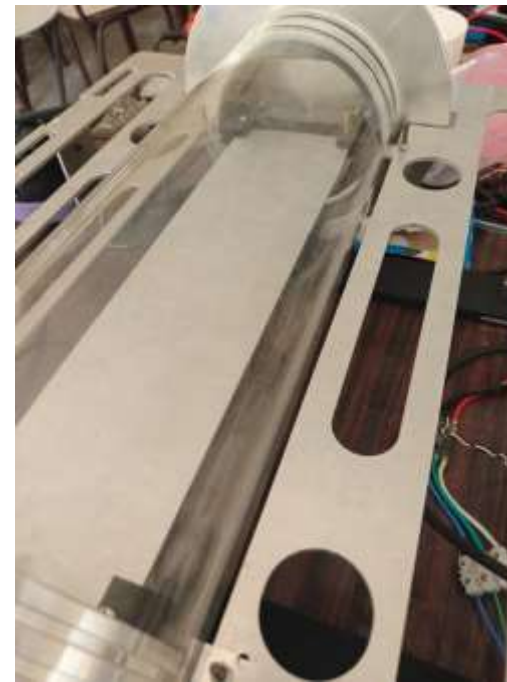


ABOUT US



Project AUV Manipal is dedicated to pioneering research within the realm of underwater robotics, with a specialized emphasis on Remotely Operated Vehicles (ROVs) and Autonomous Underwater Vehicles (AUVs).

Our mission is twofold: To advance the frontiers of knowledge through rigorous research endeavours and to excel on the global stage by participating in esteemed national and international competitions. Through these endeavours, we aim not only to showcase our cutting-edge technology but also to assert our expertise and leadership in this dynamic field.



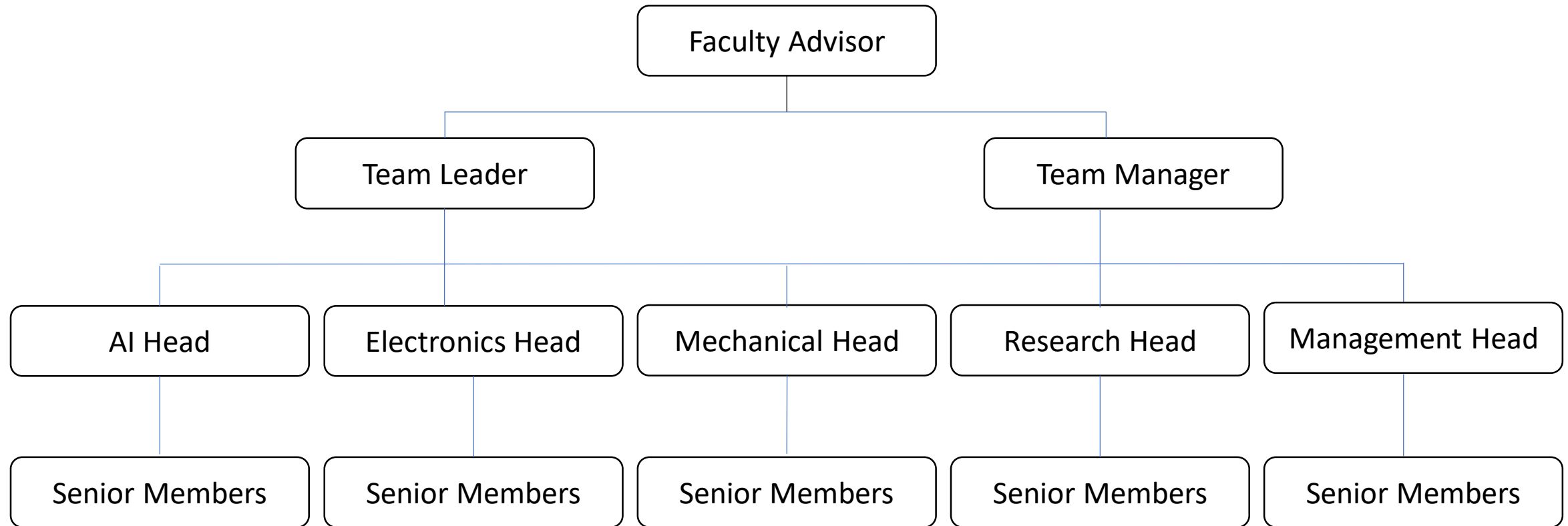


SUSTAINABLE DEVELOPMENT GOALS

Sustainable Development Goal (SDG)	Supporting work for SDG
SDG 7: Affordable and Clean Energy	<i>Ocean Energy Exploration:</i> AUVs can be used to explore and assess the potential for harnessing ocean energy sources.
SDG 9: Industry, Innovation, and Infrastructure	<i>Water Quality Assessment:</i> AUVs can help assess the quality of water in lakes, rivers, and oceans, contributing to the identification of pollution sources and the protection of aquatic life
SDG 11: Sustainable Cities and Communities	<i>Flood Monitoring:</i> AUVs can be used to monitor and assess flood-prone areas, helping to improve disaster preparedness in coastal cities and communities.
SDG 13: Climate Action	<i>Climate Research:</i> AUVs equipped with sensors can collect oceanographic data that contributes to climate research, including the measurement of sea-level rise and ocean acidification.
SDG 14: Life Below Water	<i>Marine Conservation:</i> AUVs can be used to monitor and protect marine ecosystems, including coral reefs, by collecting data on water quality, temperature, and the health of underwater habitats.



TEAM STRUCTURE





Recent Achievements



From MIT's First Underwater Vehicle to **FOURTH** Rank at a Global Stage

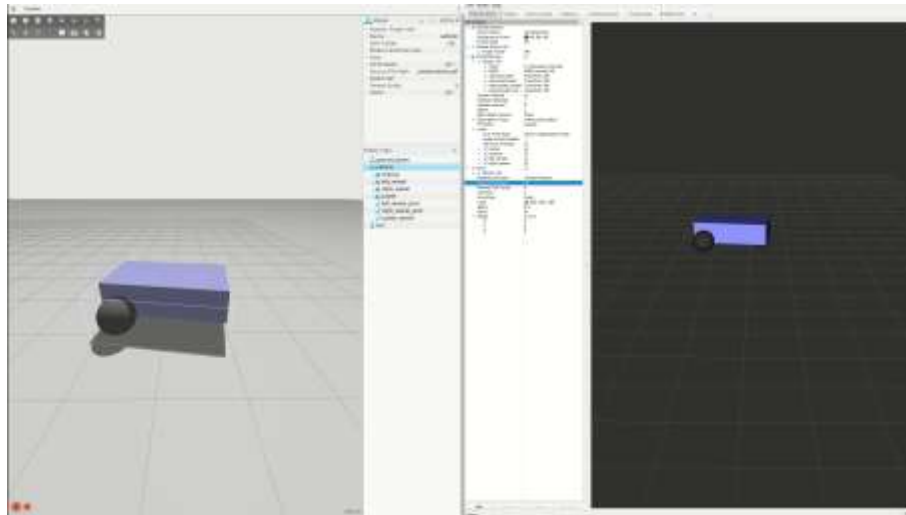


Notable Landmarks

-  May'24 – First Working Underwater Vehicle Successfully Tested
-  September'24 - One of 10 Teams to Qualify for UWR'24
-  October'24 – **1st Rank in Pitching Competition**
-  October'24 – **4th Rank Overall**



- The design incorporates three distinct hulls, each serving a crucial function. These hulls are mounted on a robust aluminum 5052 frame, consisting of base plates, C-rings, and extrusions, ensuring structural stability and durability in underwater conditions.
- Further validation is carried out through ANSYS simulations, which tests the structural integrity.
- The design is validated for underwater operation up to 25 meters in depth, using **Under Pressure 4.60 software** to assess hull strength under theoretical conditions.
- **Integration of AI using:**
 1. MAVROS Package Integration
 2. ZED 2i and Jetson Integration
 3. Isaac Sim for AI-Driven Simulation
 4. Simulating Environment using Gazebo
 5. Underwater Image Enhancement using GANs





WHY SPONSOR PAUVM?



BENEFITS	WHAT PAUVM OFFERS	VALUE TO SPONSOR
Talent Recruitment	Access to highly motivated students in Robotics, AI, Mechatronics, Embedded Systems, and Mechanical Design	Build a pipeline for internships, placements, and future hires
Brand Visibility	Logo placement on AUV, team apparel, website, presentations, and social media	Increase brand awareness among engineering students and industry professionals
Competition Exposure	Representation at national and international robotics competitions	Visibility to universities, judges, researchers, and industry leaders
Long-Term Partnership	Multi-year project development and continuous technical growth	Sustained brand presence within the robotics ecosystem



WHY SPONSOR PAUVM?



BENEFITS	WHAT PAUVM OFFERS	VALUE TO SPONSOR
Technology Validation	Real-world testing of hardware, software, sensors, and embedded systems	Product feedback and engineering validation in challenging environments
Content & Marketing	Technical blogs, build logs, testing videos, and project showcases	Authentic engineering content featuring sponsor technologies
Research & Innovation	Collaboration on AI, Computer Vision, SLAM, Navigation, and Autonomous Systems	Demonstrate commitment to innovation and emerging technologies
Industry Engagement	Technical workshops, webinars, and knowledge-sharing sessions	Direct engagement with future engineers and researchers



PARTNERSHIP OPPORTUNITIES



PARTNER TYPES

Platinum Partner

Gold Partner

Silver Partner

Bronze Partner

TYPE	CONTRIBUTION
Platinum Partner	₹2L+
Gold Partner	₹1L+
Silver Partner	₹50k+
Bronze Partner	₹20k+
Technical Partner	Hardware/Software Support



PLATINUM PARTNER

CONTRIBUTION

₹2,00,000+

BENEFITS



Largest logo on AUV



Largest logo on team apparel



Dedicated social media campaign



Website recognition



Competition branding



Demo day invitation



Recruitment interaction



GOLD PARTNER

CONTRIBUTION

₹1,00,000+

BENEFITS



Large logo on AUV



Apparel branding



Website recognition



Social media recognition



Competition exposure



PARTNERSHIP OPPORTUNITIES



SILVER PARTNER

CONTRIBUTION

₹50,000+

BENEFITS



Medium logo



Website recognition



Social media appreciation



BRONZE PARTNER

CONTRIBUTION

₹20,000+

BENEFITS



Website listing



Sponsor appreciation post



Silver Partner:

Contribution:

₹50,000+

Benefits:

- Medium logo
- Website recognition
- Social media appreciation

Bronze Partner:

Contribution:

₹20,000+

Benefits:

- Website listing
- Sponsor appreciation post



Technical Partner:

Technical Partnership Opportunities:

Category	Requirements
Embedded Systems	Jetson, STM32
Software	MATLAB, ANSYS
Manufacturing	CNC Machining
Marine Hardware	Thrusters, Sonar
Materials	Carbon Fiber, Aluminum

Benefits:

- Technical Partner status
- Logo on robot
- Product showcase
- Engineering report
- Social media mentions



CONTACT US



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**THANK
YOU**

